

Expert Contributors

MEMS Commercialization Report Card – Part 9: Marketing – Part 4

By Roger H. Grace

Introduction

Part 4, and the final part on the topic of MEMS and sensors marketing for the 2018 MEMS Commercialization Report Card, which follows, provides a brief recap of the Report Card grades over the years and provides summaries of interviews and case studies recently conducted on the topic. Previous episodes on the Report Card series, which date back to the inaugural issue of Sensors Daily on December 4, 2019, include Infrastructure, Design for

Manufacturing and Test, and Technology Clusters and can be found in the [Sensors Daily Update archives](#).

The focus of this article will be the results of my recent detailed interviews and the resulting edited comments and case studies from three MEMS and sensors marketing experts who were part of the 35 respondents to the Report Card Study in addition to the inputs from a colleague and e-marketing consultant. I trust that you will find these recent interviews/case studies of value in helping to develop successful, timely, and industry-proven strategies for your organization's marketing activities, especially in light of the disastrous effects of the COVID-19 pandemic as delineated in my previous Sensors Daily article, [Marketing in a Recession: How to Survive](#).^[1]

Previous episodes on the topic of marketing in the Report Card series are:

[Episode 6, Marketing Part 1](#): March 11, 2020 issue

[Episode 7, Marketing Part 2](#): March 25, 2020 issue

[Episode 8, Marketing Part 3](#): April 22, 2020 issue

Report Card Grade

I have decided to restate the background information on the Report Card grade here to help people who have recently started following this series in an attempt to gain valuable insights into the topic and process. As previously stated in Episode 6: Marketing Part 1, the Report Card grade for MEMS was B. It has been at this level since 2015, inferring that MEMS has finally become a mature technology and MEMS marketing has finally come into its own (see figure 1). However, when the Report Card was launched in 1998, the grade was C-. Thus, it has taken quite some time to emerge from this unsatisfactory level, finally arriving at the B- level in 2013.

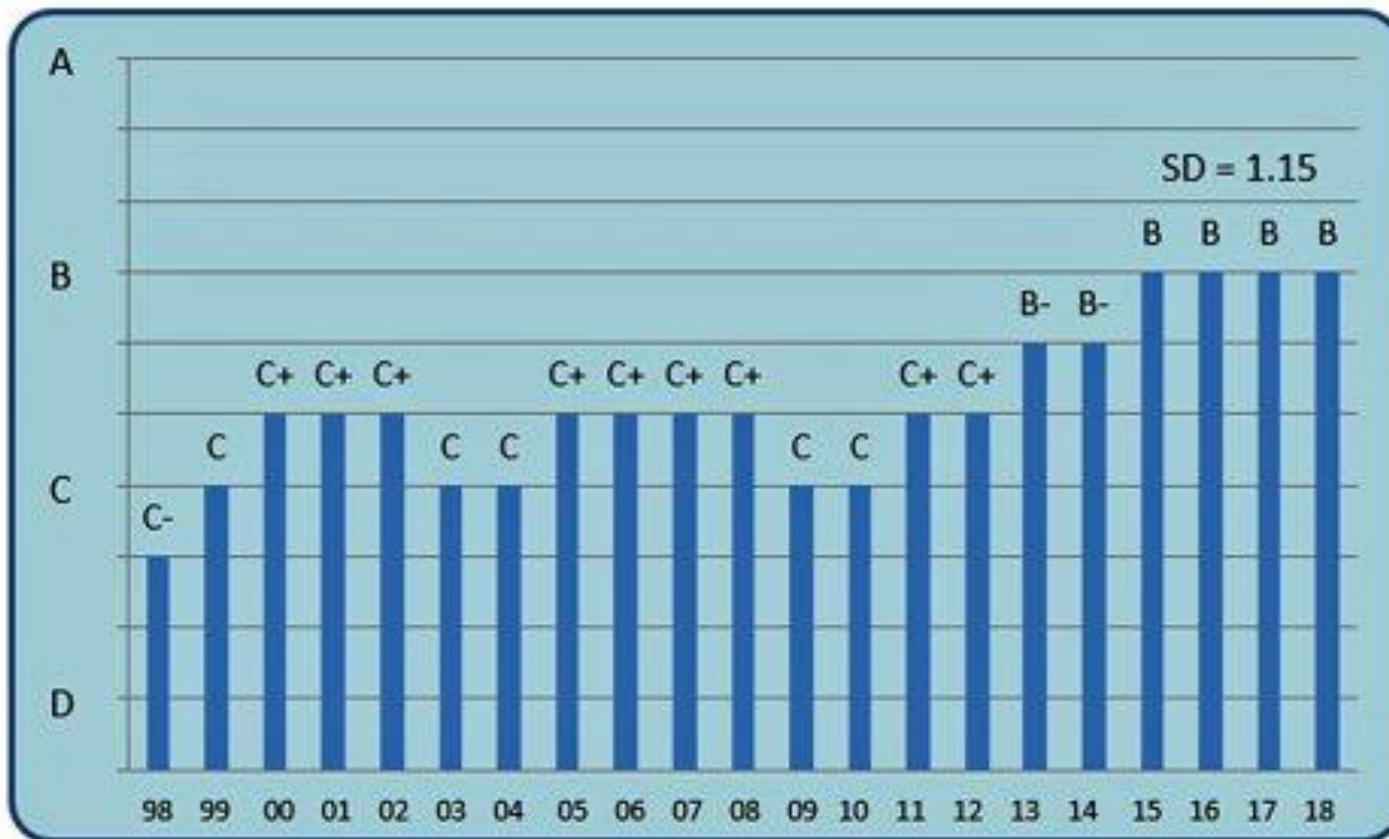


Fig. 1: The MEMS Commercialization Report Card grade for marketing received less than favorable grades in the past. The good news is that it has improved slowly from its historical C levels to a B for the past four years. It is interesting to note that the Report Card provided low grades of C in 2009/2010 from the previous several years' grades of C+, thus accurately reflecting the impact of the world economic crisis. Courtesy: Roger Grace Associates

I previously addressed some of the rationale for this phenomenon ^{[2] [3] [4]} and referred to this situation of MEMS marketing as an "oxymoron or opportunity" based on the responses from previous Report Card studies. The good news? One needs only to be better than the competition to succeed. Not necessarily perfect, just better.

Abridged Interview Summaries

1. Paul Werbaneth, Contributing Editor, 3D InCities, and experienced semiconductor and capital equipment industry marketing executive, said, "In my opinion, the trend of the past several years in the marketing of MEMS and sensors is definitely in the broad adoption of networked social media, with LinkedIn at the top, followed by Twitter and possibly Facebook, and the good news is that they are virtually free. I also consider working on Google rankings to be a major opportunity for adoption by companies, where ranking high in a pertinent Google search is the objective. This can be done organically and for free.

“One can also pay Google for an enhanced listing; however, I have never had the luxury, so I needed to be smart as to how best to gain exposure with a limited budget. My favorite of the social channels by far is LinkedIn, since I consider it to be historically the most effective in reaching my audience, and its voice carries the greatest authority. Successful marketers must create a winning value proposition, optimize their messaging, use every channel to get the message out, minimize costs, be professionally persistent in the posting of information, and be keenly aware of the sales cycle and plan accordingly.

“I am also a big fan of using short videos, such as you would post on YouTube, especially where the video can demonstrate the uniqueness of a product in a way that words don’t completely convey. And you don’t want to neglect the original outbound marketing channel, your outbound email marketing campaigns, using providers including Bomb Bomb, Constant Contact, and Mailchimp. Those services may not be free, but their costs are extremely reasonable, and I consider them of great value still. Finally, make every attempt to keep your website up to date, add continually with new blog posts, for example, and be darned sure that your site is easy to navigate.”

Lessons Learned: There are many zero- to low-cost networked social media vehicles available to marketers to optimize communicating an organization’s message. Providing the right content is key.

- 2. Shawn Martinsen, Product Manager for Sensor Technology, Digi-Key Electronics, said, “With all due respect, I do not agree with the grade of B for MEMS marketing. I consider the grade understated.**

“With the many benefits of MEMS, they continue to be on the cutting edge for improvements year after year. Many MEMS-based organizations turn out new product introductions (NPIs) at a rapid pace. This is great from a marketing standpoint, as NPIs drive growth in sales and provide new improvements for marketing campaigns versus just remarketing legacy products.

“The use of social media has certainly added to the repertoire of the marketing tool kit to effectively address the target audiences and to communicate the availability of these NPIs. With MEMS, there is always something new, and everyone wants the latest and greatest, especially engineers. I feel that there will be a continued shift in strategy in focusing marketing campaigns on specific market verticals versus the broad net approach. This showcases the immediate benefit of how a product or technology can really add value to an application or market space for the design engineer.”

Lessons Learned: MEMS technology is on the leading edge of innovation and will continue to be a valuable product segment for driving marketing initiatives.

- 3. Robert Andosca, Ph.D., previously quoted in Part 3 and coming from a different perspective, said, “As manager of social media programs at the Micro, Nano ,and Emerging Technologies Commercialization Education Foundation (MANCEF), I am leading our marketing team in developing and launching a social media campaign promoting COMS2020. The marketing campaign will begin with using LinkedIn as our primary tool.**

“On LinkedIn, the team will promote COMS2020 via four mechanisms: first, using its own profile, MANCEF Emerging Technologies, which is set up just like a user profile with its profile picture being the MANCEF logo. This strongly helps brand MANCEF as an organization and promotes COMS2020 at the same time. Second, this user profile will post to many relevant LinkedIn groups (e.g., Internet of Things group, MedicalDevicesGroup.net group and SEMI – MEMS & Sensors Industry Group, just to name a few), including three of its own (1) MANCEF Emerging Technologies Group, (2) EH-IoT | Energy Harvesting and the Internet of Things group and (3) UXS | Unmanned Drone Systems group. Third, this will be followed by all MANCEF’s BoD members reposting from the MANCEF Emerging Technologies profile’s posts, such that their connections see the COMS2020 announcements. Lastly, we will post to the MANCEF company page on LinkedIn. This will all be followed by posting on our Facebook, MANCEF.org, and Twitter/MANCEF web pages as well.”

Lessons Learned: Technology evangelists do not necessarily end up with their heads on a silver platter. They are able to gain credibility in the market via well-crafted and informational-based tutorial presentations at key conferences and at no cost. LinkedIn is a very powerful tool and should be used to the extent that it can.

Not-for-profits, including MANCEF, are uniquely challenged to create promotional programs for their conferences and participation of their members. Use of a broad, well-planned, and well-executed networked social media program with as many of the organization’s members taking part in the promotion of these messages is the key to success.

The sales funnel (see figure 2), also known as the customer journey, provides a handy roadmap to the process of how best to engage with potential customers using various marketing communications (MARCOM) tools. Savvy marketers need to judiciously choose a selection of the best marketing tools, both digital- and land-based, to best create the customer experience.

What is critical here is how all of these elements synergistically interact with each other and what specific objectives are required from each element to mutually maximize ROI in achieving the overall marketing and sales objectives. Barbara Langdon, owner of Market Momentum, whom I consider to be a B-to-B digital marketing maven, says, “I believe that the heart of the sales funnel and customer journey process is the establishment of a well-designed and well-contented website that is easily navigable and provides calls to actions from the people who are driven there by social and land-based communications activities.

“The key to the efficacy of the website is the content. It needs to be to the point, have the ability to inform, and be of value to the user. Most importantly, it needs to evoke a call to action and a mechanism for the user to engage with the marketer and vice versa. I urge my clients to include an automation process within the website as the mechanism to interact with email platforms such as Constant Contact as a means to easily provide targeted materials to users. I consider using frequent sequential emails — a.k.a., drips — to be extremely valuable in building awareness and trust as well as in their ability to create a valuable qualified customer contact list for subsequent communications.

“In summary, to build your funnel and exploit social media targeting and automation, I recommend that you should understand your audience and create a target persona using demographics and psychographics; create content mapped to each phase of the buyers’ journey; automate where you can; and start today.”



Fig. 2: Funnel marketing, a.k.a., customer journey, is a step-by-step process that all customers go through to identify vendors, collect information, sift through various alternatives, make a final purchase decision, and possibly establish a long-term relationship with a prospective supplier. Courtesy: Market Momentum/Roger Grace Associates

Summary

This is the fourth and the final part of my series on marketing as part of the 2018 MEMS Commercialization Report Card series. After a brief introduction of the Report Card grades, the results of four recent in-depth interviews on the topic of marketing MEMS and sensors were presented.

There was a high degree of consensus from the respondents as to what strategies and tools they have employed in their successful activities resulting in social media, websites, and emails as the top performers. From a social media perspective, it has been recently shown that professional community networks, YouTube, and LinkedIn are significantly more effective in reaching engineers than Facebook, podcasts, Twitter, Reddit, Pinterest, and

Instagram^[5]. Additionally, some of my most recent research has shown a significant rise in videos — e.g., YouTube — as significant information providers to engineers.

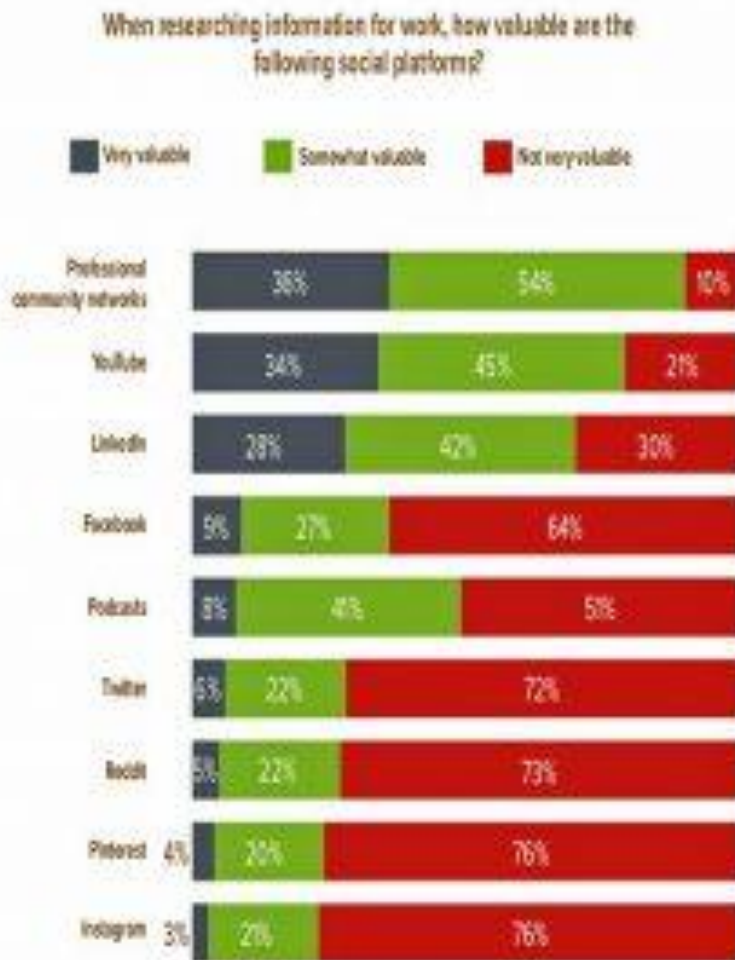


Fig. 3: A September 2019 market study of 291 engineers found how valuable various social platforms were when researching information for work. Courtesy: Trew Marketing/IEEE Global Spec

In light of the current COVID-19 pandemic, one possible benefit to emerge from this is that we are being challenged to find new and unique ways to communicate in the “new normal” environment. Personally, I have recently become a Zoom junkie and have participated in several complimentary presentations on marketing.

My final words to MEMS and sensors marketers are:

- Use the data that you currently have to make data-driven decisions with specificity and accuracy on the optimum mix of MARCOM tools to best address your target audience(s).
- Do not be afraid to pivot your marketing activities where necessary.

- Be relevant, focus, prioritize your plans, and be agile, nimble, and flexible enough to adapt and accommodate sudden changes from the economy in addressing your customers' needs.
- Constantly seek to build trust, loyalty, and value with the judicious selection of your MARCOM tools.
- Referring to my previously referenced "Marketing in a Recession: How to Survive" article^[1], do not panic and cut your marketing budgets, but rather be judicious in evaluating the ROI of each of your MARCOM tools and make intelligent, not emotionally-driven, decisions.

REFERENCES

[1] R. Grace; "Marketing in a Recession: How to Survive," [Sensors Daily Update, April 8, 2020](#)

[2] R. Grace; MEMS and Sensors Marketing: Oxymoron or Opportunity, Part 1; Commercial Micromanufacturing International; Vol. 9, No. 4; pp. 36-41. www.rgrace.com

[3] R. Grace; MEMS and Sensors Marketing: Oxymoron or Opportunity, Part 2; Commercial Micromanufacturing International; Vol. 10, No. 2; pp. 36-41. www.rgrace.com

[4] R. Grace; MEMS and Sensors Marketing: Oxymoron or Opportunity, Part 3; Commercial Micromanufacturing International; Vol. 10, No. 3; pp. 39-45. www.rgrace.com

[5] Trew Marketing/IEEE Global Spec, 2020 Smart Marketing for Engineers, January 2020, p. 11, www.trewmarketing.com.

About the Author



Roger H. Grace is president of Roger Grace Associates, a Naples, Florida-based strategic marketing consulting firm specializing in high technology. His educational background includes a BSEE and MSEE (as a Raytheon Company fellow) from Northeastern University, and the MBA program at Haas Graduate School of Business at U.C. Berkeley. He has specialized in sensors and ICs for over 35 years with a focus on micro electromechanical systems (MEMS). He has authored over 75 technical papers and articles, organized, chaired, and spoken at over 50 international technical conferences.

Roger is frequently quoted as an industry expert in major international technical and business publications on the topic of technology commercialization. He was the co-founder, past president, and currently is the Vice President of the Americas of the Micro, Nano and Emerging Technologies Commercialization Education Foundation (MANCEF) and served on the Board of Directors of the Florida Manufacturing Extension Partnership from 2008 to 2014. For more details, contact Roger via email at rgrace@rgrace.com and to learn more, visit Roger Grace Associates.